# HOW TO BUILD BRAND LOYALTY IN HERBAL MEDICINE TO PREVENTING ANTIMICROBIAL RESISTANCE IN POULTRY: CASE STUDY ANIMAL PHARMACEUTICAL INDUSTRY IN INDONESIA

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# **ABSTRACT**

This study proposes to investigate the factor of brand loyalty "Produk Herbal" to encourage best practices among farmers to prevent antimicrobial resistance and treat infections in humans, especially in Poultry in Indonesia. The data were collected from 77 poultry farmers ("Produk Herbal" customers) sales representatives' area of Bogor. Using partial least squares (SEM-PLS), Seventy-seven questionnaires covering factors of trust, brand competitiveness, education promotion, product knowledge, physical attributes, perceived quality, and perceived value of costs have been evaluated. The results indicate that customer satisfaction, perceived value, and perceived quality directly influence brand loyalty. Moreover, the trust variable is the most important factor that can stimulate brand loyalty of "Produk Herbal" to breeders mediated by customer satisfaction. Then, PT XYZ can improve indicators that strongly influence brand loyalty of "Produk Herbal" which are after-sales service, quality, safety, legality, and other to encourage the farmer's commitment. The literature supports variables that directly and indirectly stimulate brand loyalty in Poultry Herbal Medicine. However, there is not much research on appropriate marketing factors for building brand loyalty, particularly in low-market penetration areas, such as the case study of Poultry Herbal Medicine in Indonesia.

Keywords: Brand Loyalty, Herbal Medicine, Poultry, SEM-PLS

### **INTRODUCTION**

Antibiotic Growth Promoters (AGP) are causing concerns for the poultry sector since they can lead to severe drug resistance. Therefore, it is critical to find a highly effective alternative method of preventing and controlling avian coccidiosis and an alternative way to solve the problem is using herbs (Yu et al., 2023) Along with global food security challenges, the findings suggested that it is high time for poultry industry players to search for other alternatives besides antibiotics and poultry herbal products are an alternative to the ban on the use of AGP (Kamil et al., 2023). To investigate the potential of alternative antibiotics for the treatment of avian bacterial diseases, as well as studies on nanotechnology and beneficial bacterial strains, extensive research is currently being carried out using natural plant extracts (El-Saadony et al., 2022).

Herbal products have advantages over the use of antibiotics because these products do not cause resistance to food products such as meat and eggs, so farmers are increasingly looking at using herbal

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medicines. After all, they are proven to maintain poultry health (Yu et al., 2023), increase productivity (Ghaniei, Ghafouri, Sadr, & Hassanbeigi, 2023; Gholipour-Shoshod et al., 2023), and are safe for the environment (Jamil, Mansoor, Khan, Ul Haq, & Anwar, 2017; Patwardhan & Gautam, 2005). Recently (Yu et al., 2023), Because phytomedicine is less likely to generate resistance in poultry animals and ecologically conscious for farmers, consumers, and the environment, it has drawn more attention and is being evaluated as a viable substitute for coccidiosis (Quiroz-Castañeda & Dantán-González, 2015). Many pharmaceuticals for poultry animals that are developed commercially have been demonstrated to have a strong anticholinergic effect and are used to treat and prevent coccidiosis (El-Saadony et al., 2022; Pop et al., 2019; Saeed & Alkheraije, 2023; Yu et al., 2023). However, in its application, it is still difficult for farmers to abandon chemical antibiotics because herbal products have a relatively longer-term effect than chemical drugs.

On the other hand, restrictions on antibiotics, the potential for increasing poultry populations, and rising cases in poultry are excellent opportunities to shift the market share of competition between chemical-based veterinary drug manufacturers to herbal medicinal products (El-Saadony et al., 2022; Kamil et al., 2023). To answer today's challenges, a veterinary pharmaceutical company (PT XYZ) in Indonesia released new herbal-based products in 2017 with the brand name "Produk Herbal" to overcome antibiotic dependence and many more veterinary pharmaceutical companies are creating herbal-based products on a commercial scale to treat and prevent coccidiosis (Quiroz-Castañeda & Dantán-González, 2015). Based on data processed by a veterinary pharmaceutical company (PT XYZ), "Produk Herbal" brand penetration is shallow, and brand penetration measurement is one of the analyses used by calculating the frequency of consumer purchases (Klepek & Kvíčala, 2022). The higher the value of brand penetration and the purchase frequency, the better the product's performance in the business market (Klepek & Kvíčala, 2022). With a higher potential for recent herbal product penetration, a method for increasing brand loyalty is essential for the product to remain competitive in today's business climate. It is necessary to provide essential information to determine the right brand loyalty strategy. The analysis includes market/consumer, competitors, and brand information. Several aspects of branding can be tested for achievement, interrelationship portfolio, strengths and weaknesses, and brand value (Liu, Chen, Sun, & Zhu, 2018).

So, the intended purpose of this research is to evaluate and analyze the attribute factors that influence brand loyalty. It is proposed that the findings of this research would assist managers in making strategic decisions by emphasizing the elements influencing poultry farmers' loyalty.

# MATERIALS AND METHODS

This research was carried out in February-March 2022 in the Bogor West Java Branch Area of PT XYZ. Respondents for this research were selected using the census method, namely 77 breeders in the Bogor Branch Area of PT XYZ who had previously used "Produk Herbal" products. This research included both primary and secondary data. Primary data was gathered from responses to questionnaires completed by research respondents. This research questionnaire uses a 1-5 Likert scale, consisting of 5 answer choices with the criteria of Strongly Agree (SS) to Strongly Disagree (STS). Then secondary data was obtained from the 2020 Bogor Branch Region progress report, international journals, and previous research.

The Structural Equation Modeling-Partial Least Squares (SEM-PLS) approach was applied to the data using Smart-PLS 3.0 software. During the early phases of the SEM approach, researchers create hypotheses, manifest variables, and latent variables, as well as research models that are relevant for the study objectives. Manifest variables can be measured directly, while latent variables cannot be

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measured. To measure latent variables, this is done using indicators (Ghozali, 2008). The indicators used in this research are detailed.

	Table OPERATIONAL VARIABI			
Variables	Indicators	Sources		
	Saying positive things			
D 1.1 16	Recommended friends	(H. 1., 6 H, 2010 K, 6 C., 7010)		
Brand Loyalty -	Continue purchasing	(He, Li, & Harris, 2012; Kataria & Saini, 2019)		
	Advice			
	Tangibility			
Customer Satisfaction	Reliability	(Anisimova, 2016; Hoq, Amin, & Sultana, 2011; Kartika, Firdaus, & Najib, 2019)		
	Responsiveness	Karuka, Firdaus, & Najio, 2019)		
	Assurance			
	Empathy			
Perceived Value of Cost	Fair	(Nguyen & Simkin, 2013; Vera, 2015; Vera-Martine Ornelas, 2019)		
-	Benefit			
	Pay more money			
	Price			
	Effectiveness			
	Reputation			
Perceived of Quality	Technology and laboratory facilities	(Dehghanpouri, Soltani, & Rostamzadeh, 2020)		
	After sales service			
	Compliance of manufacture			
Trust	Legal compliance	(Martínez & Rodríguez del Bosque, 2013)		
	Safety			
	Concern			
	Indication			
Product Knowledge	Ingredients	(Nawi, Al Mamun, Nasir, Abdullah, & Mustapha, 2019)		
	Application dose			
	Trial			

	Colour of form			
Physical Attribute	Design	(Nawi et al., 2019; Vera-Martinez & Ornelas, 2019)		
	Texture			
	Size			
	Form			
	Capabilities			
	Innovative			
Brand Competitiveness	Exploration and exploitation	(Ferreira & Coelho, 2020; Winzar, Baumann, & Chu,		
	Performance	2018)		
	Sustainably			
	Differentiation			
	Oral presentation			
Education Promotion	Advertising campaign			
	Digital marketing	(Kautish & Sharma, 2019)		
	Public relationship			
	Awareness			

#### **RESULTS**

### **Respondent profiles**

According to Table 2, male breeders dominated the respondents to the study at 93.05%, while female respondents accounted for 6.9%. The Bogor Branch Area's respondents/breeders are primarily educated at the bachelor's degree level, with 56.94% holding one. The Bachelor's degree of education for breeders is quite beneficial in running a livestock company. The majority of respondents were at the owner and manager levels, who understand the prevention and treatment of chicken illnesses, therefore this level is the most important decision maker when purchasing herbal products, with owners at 41.66%, health managers at 23.61%, and cage managers at 16.66%. This type of livestock business is mostly and more dominant as the main business at 94.44%, because deciding to enter the livestock business requires a greater focus in managing business continuity. The majority of respondents (38.88%) have an income of more than 20 million, and the longest farming experience is more than 20 years, accounting for 34.72% of respondents.

Table 2 PROFILE OF THE RESPONDENTS					
Characteristics	Descriptions	Total (n)	Percentage (%)		
Gender	Male	72	93.05		
	Female	5	6.95		

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Education	Doctor	2	2.77
	Master	5	6.94
	Bachelor	41	56.94
	Diploma	8	11.1
	Senior High School	2	2.77
Position	Owner	30	41.66
	Health manager	17	23.61
	Kennel manager	12	16.66
	Kennel foreman	9	12.5
	Administration	4	5.55
Type of work	Primary	68	94.44
	Secondary	4	5.55
Income	1-2.5 million	16	22.22
	2.6-5 million	24	33.33
	5.1-10 million	5	6.9
	10.1-20 million	2	2.7
	More than 20 million	28	38.88
Farming Experience	1-5 years	12	16.66
	5-10 years	8	11.11
	10-15 years	17	23.61
	15-20 years	10	13.88
	≥ 20 years	25	34.72
Type of Chicken	Breeding	22	30.55
	Broiler chickens	35	48.61
	Free-range chickens	5	6.94
	Stud chickens	10	13.88
Age	18-25 years	12	16.66
	26-35 years	18	25
	36-45 years	15	20.83
	46-55 years	5	6.9
	≥ 56 years	22	30.55

High experience is a greater strength than education in breeding farms for broiler and stud chickens since experienced breeders are better equipped to compete in today's livestock market circumstances. In this survey, most respondents (48.61%) were broiler chicken breeders, followed by breeding breeders (30.55%). Most chicken farmers in the Bogor Branch region are above the age of 56, accounting for 30.55% of the total. The table shows that mature age groups dominate many breeders.

### **Evaluation of the measurement model (outer model)**

This study uses the outer model to investigate the relationship between latent variables and indicators or how well an indicator describes the latent variable. The examination of the outer model is divided into three categories: convergent validity, discriminant validity, and reliability. First, the convergent validity test is performed by examining the outer loading value of each indicator. Indicators with an outer loading value less than 0.7 should be eliminated from the model (Schumacker & Lomax, 2004).

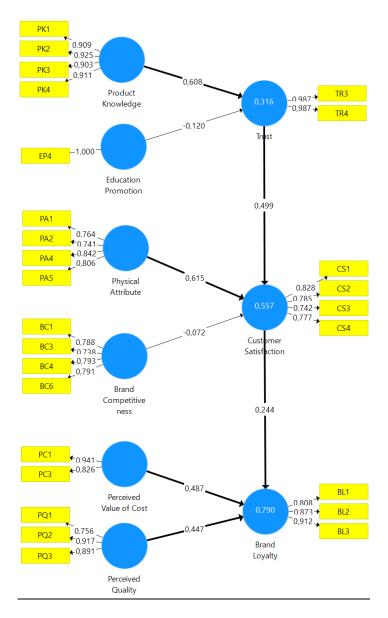


FIGURE 1 OUTPUT PLS ALGORITHM

Several indicators are removed from the initial model, including EP1, EP2, EP3, and EP5, from the education promotion variable, the physical attribute variable, namely PA3 and from the brand competitiveness variable, BC2 and BC5. PC2, PC4, and PQ4 are also removed from the initial model's

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perceived cost value and perceived quality. Similarly, the indicators TR1 and TR2 from the trust variable are eliminated from the model. Furthermore, the CS5 indicator must be removed from the model for the customer satisfaction variable. This shows that these indicators cannot reflect their respective variables. Finally, BL4, an indicator of the brand loyalty variable, must also be removed from the model. Of the 41 indicators, 14 do not meet the standard values for this research data analysis. These indicators are shown in Table 1, and the PLS-SEM results are displayed after replication (Figure 1).

The next test is discriminant validity, which compares the square root of the average variance recovered for each construct to the correlation between that construct and the others. This model passes the discriminant validity test, which means the AVE root value of each construct is bigger than the correlation between that construct and others (Table 3).

Table 3									
	FORNELL-LARCKER CRITERION								
	BC	BL	CS	EP	PQ	PC	PA	PK	TR
Brand Competitiveness	0.778								
Brand Loyalty	0.693	0.865							
Customer Satisfaction	0.496	0.683	0.783						
<b>Education Promotion</b>	0.668	0.58	0.391	1					
Perceived Quality	0.732	0.667	0.541	0.51	0.858				
Perceived Value of Cost	0.491	0.667	0.405	0.596	0.18	0.885			
Physical Attribute	0.745	0.781	0.567	0.703	0.552	0.668	0.789		
Product Knowledge	571	0.528	0.524	0.466	0.799	0.1	0.473	0.912	
Trust	0.219	0.356	0.489	0.163	0.466	0.025	0.011	0.552	0.987

Furthermore, the model's reliability is measured using Cronbach's alpha and the composite reliability value. If the value of Cronbach's alpha equals or exceeds 0.7 (F. Hair Jr, Ringle, & Sarstedt, 2011) and also applies the composite reliability value (Vinzi, Chin, Henseler, & Wang, 2010), the model construct is deemed reliable. Table 4 shows the data collected values for Cronbach's alpha, composite reliability, and average variance.

Table 4 THE RESULTS OF CRONBACH'S ALPHA, COMPOSITE RELIABILITY, AND AVERAGE VARIANCE EXTRACTED						
Variable Cronbach's Alpha Composite Reliability Average Variance Extrac						
Brand Competitiveness	0.808	0.86	0.605			
Brand Loyalty	0.832	0.899	0.749			
Customer Satisfaction	0.791	0.864	0.614			
Education Promotion	1	1	1			
Perceived of Quality	0.817	0.892	0.736			
Perceived Value of Cost	0.74	0.879	0.784			
Physical Attribute	0.803	0.868	0.622			
Product Knowledge	0.933	0.952	0.832			

Trust	0.974	0.987	0.974	I
Hust	0.974	0.907	0.974	L

The Average Variance Extracted is larger than 0.5, all Cronbach's alpha values are greater than 0.7, and composite reliability exceeds 0.6. Thus, every variable fulfills the requirements.

# **Evaluation of The Structural Model (Inner Model)**

The structural model was evaluated by analyzing R<sup>2</sup> for endogenous latent variables and predicted path coefficients. The R<sup>2</sup> stage of the structural model for the endogenous latent variable is 0.67, 0.33, and 0.19, respectively, indicating good, moderate, and weak. The brand loyalty variable fits into the good category since it has a value of 0.781, indicating that the factors analyzed can explain up to 78.1% of brand loyalty, while variables outside the model can explain up to 21.9%. Another endogenous variable, customer satisfaction, has a value of 0.539 and is classified as moderate. This means that 53.9% of the variables/factors in the examined model may explain customer satisfaction, with the balance explained by factors outside the research model. Finally, the trust variable remains weak since it has a value of 0.297, indicating that the variables/factors examined in the model can only explain 29.7% of the trust variable.

In addition, the second test evaluates the inner model to establish the relevance of the relationships between the constructs used to test the study's hypothesis. This second test looks at the value of the parameter coefficients and the t-statistical significance test. The consideration used is the alpha level of 0.05. A hypothesis is accepted when the t-statistics value exceeds the t-table at the alpha level 0.05 (>1.96). This test employs the bootstrapping approach, which tries to reduce the presence of abnormalities in the study data the bootstrapping results using the path coefficients approach.

Table 5 THE RESULTS OF TESTING THE BOOTSTRAPPING PATH COEFFICIENTS HYPOTHESIS						
	Original Sample	T-Statistics	P-Values	Hypothesis		
$PK \rightarrow TR$	0.608	10.956	0	H1: Accepted		
$EP \rightarrow TR$	-0.12	1.259	0.209	H2: Rejected		
$PA \rightarrow CS$	0.615	3.895	0	H3: Accepted		
$BC \rightarrow CS$	-0.072	0.436	0.663	H4: Rejected		
$PC \rightarrow BL$	0.487	9.005	0	H5: Accepted		
$PQ \rightarrow BL$	0.447	6.454	0	H6: Accepted		
$TR \rightarrow CS$	0.499	6.29	0	H7: Accepted		
$CS \rightarrow BL$	0.244	3.763	0	H8: Accepted		

According to six of the eight hypotheses tested were accepted, as indicated by a t-statistic value of more than 1.96 or a p-value less than 0.05. Based on the bootstrapping result, the accepted hypotheses are Product Knowledge  $\rightarrow$  Trust (H<sub>1</sub>), Physical Attribute  $\rightarrow$  Customer Satisfaction (H<sub>3</sub>), Perceived Value of Cost  $\rightarrow$  Brand Loyalty (H<sub>5</sub>), Perceived Quality  $\rightarrow$  Brand Loyalty (H<sub>6</sub>), Trust  $\rightarrow$  Customer Satisfaction (H<sub>7</sub>), and Customer Satisfaction  $\rightarrow$  Brand Loyalty (H<sub>8</sub>).

#### DISCUSSION

Table 5 shows six accepted hypotheses, namely H<sub>1</sub>, H<sub>3</sub>, H<sub>5</sub>, H<sub>6</sub>, H<sub>7</sub>, and H<sub>8</sub>. The six variables have positive parameter coefficient values (original sample), with details of product knowledge having a value of 0.608, which means that product knowledge positively affects trust (H<sub>1</sub>) by 60.8%. Physical attributes have an original sample value of 0.615, which means that physical attributes positively affect customer satisfaction (H<sub>3</sub>) by 61.5%. The perceived value of cost has an original sample value of 0.487, indicating that it supports brand loyalty (H<sub>5</sub>) by 48.7%. The perceived quality has an original sample value of 0.447, which means that perceived quality positively affects brand loyalty (H<sub>6</sub>) by 44.7%. Trust has an original sample value of 0.499, which means that trust positively affects customer satisfaction (H<sub>7</sub>) by 49.9%. The original sample value for customer satisfaction is 0.244, indicating that it has a 24.4% positive effect on brand loyalty (H<sub>8</sub>). According to the original sample value, the trust variable is the most essential component to stimulate "Produk Herbal" brand loyalty to the breeder, as mediated by consumer satisfaction.

Before reaching the stage of consumer satisfaction, the trust variable is strongly affected by the product knowledge variable. Knowledge is related to expertise, which consists of the ability of consumers to know about brands, products, types, methods of use, production performance, purchasing information, and abilities related to products and markets (Alba & Hutchinson, 1987; Chiou & Droge, 2006; Nawi et al., 2019; Sharma & Patterson, 2000). The findings by Ireland and Rajabzadeh, (2011) also support the assertion that product knowledge affects the level of consumer trust in product determination. In their study, Muslim consumers paid attention to the halal status of available products and even expressed doubts about products containing prohibited derivative substances. (Embling et al., 2024), state that customer trust in a product is reinforced by information transparency and positive perceptions in building a product brand, thereby enhancing willingness to buy and serving as a key factor for longer-term consumer acceptance (East, 1992). The uncertainty of information can become a barrier. Hence, trust in information becomes a major concern in labelling and product claims. Because consumers choose products with a positive brand image based on their knowledge of the product (Laroche et al., 2001; Mohd Suki, 2016; Padel and Foster, 2005; Wang et al., 2019).

When a brand succeeds in enhancing consumer trust through product knowledge, consumer trust will affect consumer satisfaction. "Produk Herbal" products are recognized for having honesty and integrity in manufacturing and applying safe livestock to deal with disease cases and improve livestock performance. This study shows that farmers repeatedly purchase "Produk Herbal" because they trust the product to help maintain their chickens' health. Moreover, its reputation, which the Ministry of Agriculture has officially recognized, has triggered farmers to feel confident and comfortable using licensed and standardized medicines. This is the opinion of (Kapferer, 2008), who states that one of the success factors of a brand is the reputation for trust attached to a particular brand. So, licensed and standardized medicines will trigger farmers to feel confident to purchase the products, and PT XYZ must improve the quality and product efficacy of "Produk Herbal". According to the research of (Kartika et al., 2019; Kataria & Saini, 2019; and Rather, 2018), high trust is positively correlated with consumer satisfaction, which is built from a strong emotional connection and mutual trust. A significant amount of trust regarding "Produk Herbal" brands is one of the primary variables in establishing brand loyalty, so trust will create a long-term relationship between the breeder and the brand of his choosing (Bianchi, Drennan, & Proud, 2014).

Not only affected by trust, but customer satisfaction is also the result of cognitive performance attribute comparisons with expectations (R. Oliver, 1980). Therefore, the identification of attributes with the potential to create customer satisfaction is crucial (Tontini, Söilen, & Zanchett, 2017).

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Physical attributes are not merely symbolic needs; as (Davari, Iyer, & Guzman, 2016) argue even if a brand neglects product attributes, consumers are likely to disregard it. In the context of a drug product, physical attributes encompass color, design, texture, size, and packaging (Kapferer, 2008). These results indicate that breeders consider the suitability of the physical attributes offered by "Produk Herbal" with their functional utility to provide optimal performance. Several prior research by (Bei & Chiao, 2001; R. Oliver, 1980) support the assumption that physical features are a critical component greatly impacting the formation of consumer satisfaction. Additionally, various research findings consistently highlight the substantial influence of physical attributes on customer satisfaction (Hwang, Jenny Kim, Young (Jacey) Choe, & Markham Kim, 2023; Kala, 2019; Karasakal, Dogan, & Gazelci, 2022).

After all, the result of this study indicates that consumer satisfaction is significant with brand loyalty. This is because farmers who have purchased herbal medicine products have met the desired expectations (Bei & Chiao, 2001; R. Oliver, 1980). Farmers for claims of product efficacy have felt "Produk Herbal" products. Besides that, "Produk Herbal" product is a series of buying and selling processes that do not only involve the product but are supported by the responsiveness of the PT XYZ team in overseeing "Produk Herbal" products in helping cases of disease and animal health. PT XYZ is committed to assisting appropriately with the difficulties experienced by farmers and prioritizing comfort and sales service. The fundamental objective of the business basis is to provide satisfied customers (Uncles, East, & Lomax, 2013) because it is among the elements that foster and retain brand loyalty (Eskafi, hossein hosseini, & Mohammadzadeh Yazd, 2013). Then a series of services to control herbal medicine products, from penetration to monitoring results, is PT XYZ's goal to create customer satisfaction to get customers who have high loyalty. (Kartika et al., 2019), it asserts that raising customer satisfaction will boost attitudes toward loyalty. Customer satisfaction is a crucial component for preserving loyalty to a brand (Eskafi et al., 2013).

As stated earlier, customer loyalty is the ultimate aim of marketing and a critical factor in a company's long-term success (Krishnamurthi & Raj, 1991). The study's findings also reveal that customer loyalty to a brand is strongly affected by the value and quality of its products. Value is based on what is given and received in a transaction (Adams, 1963; Bolton & Lemon, 1999; R. L. Oliver & DeSarbo, 1988; Zeithaml, 1988). Superior customer value may be produced when a brand outperforms its competitors at the same price (Sirdeshmukh, Singh, & Sabol, 2002; Slater & Narver, 1990; Yang & Peterson, 2004). Consistently, it would be anticipated that a consumer who demonstrates deliberate behavior towards the brand, such as purchase intention or intentional loyalty, will perceive a high value in the brand (Baker, Parasuraman, Grewal, & Voss, 2002; Floh, Zauner, Koller, & Rusch, 2014; Grewal, Monroe, & Krishnan, 1998; Gruen, Osmonbekov, & Czaplewski, 2006). However, (Chandon, 2005; Keiningham, 2007; Kumar, 2013) argues that a company is better off focusing on customer loyalty behavior than intentional loyalty as it directly leads to revenues and profitability. Furthermore, there has been empirical research linking perceived value and consumer loyalty to a brand (Sirdeshmukh et al., 2002; Yang & Peterson, 2004). As a result, stronger brand loyalty may indicate a greater level of perceived value (Chen & Tsai, 2008; El-Manstrly, 2016; Kim, Chen, & Kim, 2023; Mencarelli & Lombart, 2017). Even if the product is still not widely used, PT XYZ should consider how valuable people think the "Produk Herbal" is, as this will help them feel that the costs and benefits are balanced and build brand loyalty.

Consumers choose a brand based on its quality. Oliver, (1980) indicated that customer product acceptability is dependent on both expected and perceived quality. Satisfied customers tend to repurchase and share positive experiences with others (Susanti, 2014). Customers may select a value proposition in some situations to forego a cheap price for a lower product quality (Ulaga & Chacour,

2001). Hence, there are two ways to develop brand loyalty. One is through the impression of enhanced quality connected to an expensive brand that provides better product performance. The other is by purchasing reasonably priced products from brands that offer good value. Given the intense competition among brands, PT XYZ's "Produk Herbal" needs to conduct an evaluation and design a sustainable strategy concerning product effectiveness, building a reputable brand, ensuring adequate technology and laboratory facilities, and providing after-sales services. Because perceived quality positively enhances satisfaction (Martensen, Grønholdt, & Kristensen, 2000), which in turn enhances loyalty (Abbasi et al., 2024; Lin, Luo, Cai, Ma, & Rong, 2016; Susanti, 2014). Then (Heng Wei, Chuan Huat, & Arumugam, 2023; Murshed, Dwivedi, & Nayeem, 2023; Romero-Subia, del Rio, Ochoa-Rico, & Vergara-Romero, 2023) in a study that had been conducted found that perceived quality positively influenced brand loyalty. These efforts aim to satisfy breeders, leading to repurchase actions.

### **CONCLUSION**

The research results showed that six of the eight hypotheses proposed were accepted. The six hypotheses include Product Knowledge significantly affects Trust (H<sub>1</sub>), Physical Attribute significantly affects Customer Satisfaction (H<sub>3</sub>), Perceived Value of Cost significantly affects Brand Loyalty (H<sub>5</sub>), Perceived Quality significantly affects Brand Loyalty (H<sub>6</sub>), Trust significantly affects Customer Satisfaction (H<sub>7</sub>), and Customer Satisfaction affects Brand Loyalty (H<sub>8</sub>). Moreover, the trust variable is the most important factor that can stimulate brand loyalty of "Produk Herbal" to breeders mediated by customer satisfaction. Hence, PT XYZ can improve indicators that strongly influence brand loyalty to "Produk Herbal", which are information of the product, safety, legality, after-sales service, quality and product efficacy, physical attributes that suit their functional utility to provide optimal performance, and should consider how valuable people think the "Produk Herbal" is, as this will help them feel that the costs and benefits are balanced so the result is to encourage the farmer's commitment.

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